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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/003,986	10/31/2001	Sergei Kalashnikov	10541-449	6073

29074 7590 11/20/2002

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EXAMINER

REIS, TRAVIS M

ART UNIT	PAPER NUMBER
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2859

DATE MAILED: 11/20/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/003,986

Applicant(s)

KALASHNIKOV ET AL.

Examiner

Travis M Reis

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 October 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Claim Objections

1. Claim 6 is objected to because of the following informalities: in line 2, "and" should be ---an---. Appropriate correction is required.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 11 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The claim language states that "each of said light sources includes a lens." This appears to contradict the disclosure and figures since they show that the lens is a part of the light collector.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to

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consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claims 1-15, 18-21 are rejected under 35 U.S.C. 102(b) as being anticipated by Ishikawa et al. (U.S. Patent 4258643) in view of Salmon et al. (U.S. Patent 5703612).

With reference to claims 1 & 2, Ishikawa et al. disclose an instrument pointer illuminating apparatus (10) comprising an instrument pointer (22) with a hub (col. 1 line 55) with a top and bottom surface mounted on a spindle (20); a plurality of light sources (24) positioned radially around said spindle adapted to supply light upward (Figure 5) into said instrument pointer; said instrument pointer including a needle portion and a light reflecting portion, said light reflecting portion being flared outward from said needle portion, said light reflecting portion having a plurality of reflective surfaces (18a, 18b) presenting an internally reflective surface adapted to reflect light received from said light sources outward into said needle portion (Figures 2 & 5).

Ishikawa et al. do not disclose expressly a gage motor with a gage motor shaft extending therefrom.

Salmon discloses an illuminated pointer for an analog gauge and related method of use and manufacture with a gage motor (32) and gage motor shaft (56) (Figure 3). Therefore, it would have been obvious to one with ordinary skill in the art at the time of the invention was made to replace the spindle disclosed by Ishikawa et al. with the gage motor and gage motor shaft as taught by Salmon in order that the pointer is controllably movable.

With reference to claims 3 & 12, The instrument pointer illumination apparatus of claim 2 wherein said light reflecting portion is adapted to cover substantially all of said top surface of said hub to reflect substantially all of the light from said light sources

outward into said needle portion at any angular position of said needle portion (Figure 2).

With reference to claim 4, Ishikawa et al. disclose said light reflective portion is flared outward from said needle portion across said hub (Figure 2).

With reference to claim 5, Ishikawa et al. disclose said light reflecting portion includes a plurality of reflective surfaces adapted to reflect light received through said hub portion outward into said needle portion (Figure 2).

With reference to claim 6, Ishikawa et al. disclose each of said reflective surfaces presents an internally reflective surface adapted to reflect light from said light sources outward into said needle portion (Figure 2).

With reference to claim 7, Ishikawa et al. disclose said plurality of reflective surfaces are matched to each other such that light is reflected from each of said reflective surfaces outward into said needle portion (Figures 2-5).

With reference to claim 8, Ishikawa et al. disclose said needle portion includes a top surface and a bottom surface, said top surface being coated with a top diffusing material (22) adapted to diffuse light outward through said top surface, and said bottom surface being coated with a material (22a) adapted to internally reflect within said needle portion substantially all of the light which hits said bottom surface (Figure 2).

With reference to claim 9, Ishikawa et al. disclose further including a light guide (14) mounted to said bottom surface of said hub portion adapted to propagate light from said light sources upward into said pointer (Figure 5).

With reference to claims 10 & 19, Ishikawa et al. disclose said light sources are positioned radially around said gage motor shaft and axially below said pointer and are adapted to supply light upward into said light collecting portion (Figure 5).

With reference to claims 11 & 14, Ishikawa et al. disclose each of said light sources includes a lens (26b, 28b) for focusing the light produced by said light source (col. lines 53-58).

With reference to claim 12, Ishikawa et al. disclose a reflector (18) surrounding said gage motor shaft adapted to reflect light from said light sources upward into said pointer (Figure 2).

With reference to claim 13, Ishikawa et al. disclose a light collector (14a) surrounding said reflector adapted to focus light from said light sources onto said reflector (Figures 1 & 3).

With reference to claims 15 & 20, Ishikawa et al. disclose said reflector (18) is conical in shape, whereby light from said light sources can be collected from any angular position around said gage motor shaft and reflected upward into said light collection portion (22a) of said instrument pointer (Figures 2 & 5).

With reference to claim 18, Ishikawa et al. disclose said lenses (26b, 28b) of said light collector (14a) focus the light collected by said lenses into parallel beams (Figure 5).

Ishikawa et al. disclose all of the instant claimed invention as stated above in the rejection of claims 1-15 & 18-20 but does not disclose expressly said light sources are light emitting diodes.

Salmon et al. discloses an illuminated pointer for an analog gauge and related method of use and manufacture wherein the light source (44) is an LED (col. 4 lines 32-33). Therefore, it would have been obvious to one with ordinary skill in the art at the time of the invention was made to replace the light sources disclosed by Ishikawa et al.

with the LEDs disclosed by Salmon et al. since LEDs & are recognized as alternative engineering choices for light sources.

7. Claim 16 & 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ishikawa et al. as applied to claims 1-15-18-21 above, and further in view of Beeson et al. (U.S. Patent 5521725).

With reference to claim 16, Ishikawa et al. disclose all of the instant claimed invention as stated above in the rejection of claims 1-15 & 18-20 but does not disclose expressly said lenses of said light collector are astigmatic lenses, whereby in the horizontal plane said lenses focus the light onto an axis coaxial with said gage motor shaft, and in the vertical plane said lenses focus the light into parallel beams.

Beeson et al. discloses an illumination system employing an array of microprisms that uses an astigmatic lens (80) (col. 7 lines 37-39). Therefore, it would have been obvious to one with ordinary skill in the art at the time of the invention was made to replace the regular lens disclosed by Ishikawa et al. with an astigmatic lens as disclosed by Beeson et al. in order that the light path will be better directly focused.

With reference to claim 17, Ishikawa et al. discloses said light sources (24) are positioned around said gage motor shaft axially below said instrument pointer (22) and radially outward of said light collector (Figure 2), whereby said light collector (14a) focuses light onto said reflector (18) and said reflector reflects the light upward into said instrument pointer (Figure 5).

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Nakamura et al. disclose an illuminated indicator gauge (U.S. Patent 4274358). Murphy discloses an illuminated pointer with axial light source (U.S.

Patent 5142456). Muramatsu discloses a gauge for an automobile (U.S. Patent 5291851). Masuda et al. discloses an illuminated slit pointer device for vehicle instrument (U.S. Patent 5320062). Ohta et al. discloses a card-carried indicating device (U.S. Patent 5529014). Furuya et al. discloses a vehicular display device (U.S. Patent 5556187). Skiver et al. discloses a surface mounted gauge with illuminated pointer (U.S. Patent 5546888). Perry et al. discloses a metallized high intensity gauge pointer (U.S. Patent 5911492). Noll discloses an illumination for a display (U.S. Patent 6004001). Kalashikov discloses an instrument pointer illuminating apparatus (U.S. Patent 6312136).

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Travis M Reis whose telephone number is (703) 305-4771. The examiner can normally be reached on 8:00--5:00 Monday--Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Diego Gutierrez can be reached on (703) 308-3875. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7722 for regular communications and (703) 308-7722 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

Travis M Reis
Examiner
Art Unit 2859



Diego Gutierrez
Supervisory Patent Examiner
Technology Center 2800

tmr
November 14, 2002